Wisconsin Elections Commission

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Election Security Subgrant
Appendix C
How-to Guides

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How to Purchase Compliant Hardware and Software

I. <u>Background</u>. If a jurisdiction decides to purchase a new computer, this document is designed to help decision makers with what to buy and where to buy it.

II. <u>Where to Buy</u>. Jurisdictions may purchase hardware from any vendor or retail store they choose. This includes vendors with discounts available through state contracts or independent retailers. Some available state vendors are listed on page C-5.

III. <u>What to Buy</u>. The incredible variety of choices available in the computer market can make the process of choosing a system difficult. We recommend that any system meet the baseline standards listed below. While more powerful systems are available, the minimum criteria below will allow clerks to perform routine election work with ease and stay within the grant budget. Jurisdictions are free to spend more than $600 on a computer but will have to pay any costs in excess of $600.

    Minimum Recommended Configuration:
1. Form Factor: Computers now come as tablets, laptops, desktops, and all-in-one machines. Any form factor will work; however, clerks may find tablets and some laptops too small for comfortable work.
2. Operating System: Windows 10
3. Processor or CPU: 1 gigahertz (GHz) or faster processor. Processors from Intel or AMD are most common. Good choices include Pentium, Core i3, Core i5, Athlon or Ryzen.
4. RAM (memory): 2 gigabytes (GB) or more.
5. Hard Disk Space (storage): 128 gigabytes (GB) or greater.
6. Graphics Card: Integrated graphics supporting DirectX 9 or later.
7. Screen Size: 14 inches or larger (a matter of personal preference).
8. Ports: Consider the number of USB ports for any printers, devices, or scanners you will connect to your device.
9. All-New: Devices must not be refurbished to qualify for the grant.

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How to Obtain IT Support

I. Background

  A. Securing state information systems is critical. Wisconsin residents rely on the state, counties, and municipalities to deliver services reliably and safely. Cyber attacks are a continuous threat to the delivery of those services. The state needs your help to protect state systems and residents' information.

  B. Cyber threats commonly focus on the weakest link within systems, primarily the people using those systems. Because cyber threats are constantly evolving, it is important to ensure that all hardware and software is updated regularly. For jurisdictions without their own IT staff, adopting managed IT services is an efficient way to stay up-to-date on technology, have access to skills, and address issues related to cost, quality of service and risk. The proactive managed services model is superior to the reactive "call-when-something-breaks" model. Once you have a problem, the damage is already done.

  C. Definitions.

    1. Compliant Device: a device that meets baseline standards outlined in Appendix C.

    2. Managed Device: a device that is receiving managed service.

    3. Managed Service: ongoing IT support meeting the requirements outlined in section B. below.

    4. Managed Service Provider: a company offering managed service to customers; usually for a monthly fee.

II. Managed Service Providers. Jurisdictions may choose any managed service provider able to meet the requirements listed below in Section III. Some available service providers are listed on page C-5.

III. Selecting a Managed Service Provider.

  A. Required Functions

    1. Software Support and Maintenance. A provider must ensure the jurisdiction maintains current:

        a.   Patches / Firmware (no later than 30 days of release by vendor).

        b.   Antivirus software.

        c.   Anti-spam/spyware software.

        d.   Web filtering software to protect against malicious websites

        e.   Operating Systems.

    2. Communication. A Managed Service Provider must agree to send and receive timely communications as described below:

      a. Notifying the WEC. Immediately notify the WEC in the event of any actual or suspected cyber security breaches affecting the clerk's office or election systems. Contact the Wisconsin Elections Commission Help Desk at elections@wi.gov or secureelections@wi.gov. Or call 1-608-261-2028.

      b. **Receiving Cyber Alerts from the EI-ISAC.** The Election Infrastructure Information Sharing and Analysis Center (EI-ISAC) provides elections-related threat intelligence, incident response and remediation, threat and vulnerability monitoring, and tools for implementing security best practices.   These resources are free.

         i. Clerks and government IT agencies can sign up for Cyber Alerts at this address: https://learn.cisecurity.org/ei-isac-registration

        ii. Private IT companies can sign up for Cyber Alerts at this address: https://learn.cisecurity.org/ms-isac-subscription

B. Recommended Functions

1. Daily Data Backup and Recovery. Establishing a back-up rotation scheme and recovery testing for the jurisdiction.

2. Authentication. The ability to manage digital certificates and set-up multifactor authentication.

3. Network Monitoring and Security. Implementing best practices to prevent and monitor unauthorized access, misuse, modification, or denial of a computer network and network-accessible resources. Retention of log in records is also recommended.

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List of Providers

1. Please check the WEC website to ensure you have the latest version of this list.

2. This list does not constitute or imply an endorsement by the WEC or the State of Wisconsin of any product, process, or service, by any of the providers listed below. Each provider sets its own prices and is free to change prices or offerings at any time. Jurisdictions may wish to investigate options through other vendors or local retail stores. –In addition to the list below, the State has established many contracts with providers of hardware and software. You can find those contracts on vendornet.wi.gov.

Company Name, Address, and Contact Information (other area locations in parenthesis)	Provides Managed Services	Sells Computers & Software
Heartland Business Systems 1700 Stephen Street Little Chute, WI 54140 (Madison, Pewaukee, Eau Claire) Michael Gauthier, mjg@hbs.net Phone: 920-747-7179	YES	YES
KerberRose Technology 115 E. Fifth Street Shawano, WI 54166 (Green Bay, Appleton, Clintonville, Stevens Point, Antigo, Sister Bay, Rhinelander, Oshkosh, and Wausau) Lucas Koenig, support@kerberrose.com Phone: 715.524.5699	YES	YES
Vanguard Computers, Inc. 13100 West Lisbon Road Brookfield, WI 53703 Jon Roehrig, sales@vanguardinc.com Phone: (262)-317-1900	NO	YES
SHI International Corp 290 Davidson Avenue Somerset, NJ 08873 (Chicago, Minneapolis) Corey Foltzer, corey_foltzer@shi.com Phone: (800)527-6389	NO	YES
Paragon Development Systems, Inc. 13400 Bishops Lane, Suite 190 Brookfield, WI (Madison, Oconomowoc, and Bloomington) Dana Berner, TeamGovEdu@pdsit.net Phone: (608)-246-2651	NO	YES

Vanguard Computers, Inc 13100 W. Lisbon Road, Suite 100 Brookfield, WI Kristin Woodburn, kristin.w.@vanguardinc.com Phone: (262) 317-1900	NO	YES

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How to Check Your Windows Operating System

1. PURPOSE. As of **January 14, 2020**, Microsoft no longer provides free security updates and support for the Windows 7 operating system. If you are still using Windows 7 it is a serious risk. Microsoft says, "If you continue to use Windows 7 after support has ended, your PC will still work, but it may become more vulnerable to security risks and viruses."

2. HOW TO TELL? Most Windows 7 users may have seen a popup stating support was going to be ending. If you don't know what version of Windows you are using, an easy way to check is to look at your Start button. The default location for the start button is in the lower left-hand corner of the screen. Look at the chart below and compare it to the start button on your computer.

If your Start button looks like this:	Your operating system is:	Your status is:
	Windows 95, 98, or ME	Bad. Your system is unsupported.
	Windows XP	Bad. Your system is unsupported.
	Windows Vista or 7	Caution. Your system is or may soon be unsupported
	Windows 8.1 or Windows 10	Good. Your system is still supported.

3. WHAT SHOULD I DO?   If you have a supported system you don't need to do anything. If your computer is still running Windows 7, or any older version of Windows, you must act soon. There are several options available:

   A. Purchase a New Computer. Recommended. Purchasing a new computer ensures you will have a capable Windows 10 system that will last many years. Good computers can be found for as low as $300.

   B. Upgrade the Old Computer to Windows 10. Recommended with reservations. Windows 10 retails for approximately $130 but discounts are common. Installation is simple but takes time. Older computers may have difficulty running Windows 10.

   C. Pay for Extended Support. Not Recommended. Microsoft offers extended Windows 7 support to businesses for a fee. The cost starts at $25 per device but doubles each year. In the long run, it is far cheaper – and easier – to instead upgrade your computer.

4. HELP. Please contact the Help Desk if you have any questions. Call 608-261-2028 or e-mail elections@wi.gov.

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How to Upgrade an Operating System

I. Background. Upgrading an Operating System (OS) is a task best left to advanced users or IT professionals. The inexperienced user could at best face a lengthy and frustrating process and at worst end up with an inoperable computer. Consider your skill level carefully before deciding to do it yourself.

II. The Upgrade Process. Most clerks use a version of Microsoft Windows so this memo addresses only Windows upgrades. Those using any other OS should consult with a subject matter expert.

A. Choosing an OS. Windows 10 will soon be the only Windows based operating system still in mainstream support. As a result, Windows 10 is the only OS recommended for new installations. Microsoft requires the following minimum system requirements:
1. Processor: 1 gigahertz (GHz) or faster processor
2. RAM: 2 gigabytes (GB)
3. Hard Disk Space: 32 GB or greater
4. Graphics Card: DirectX 9 or later
5. Screen Resolution: 800 x 600
6. Internet Connection: required for updates

If your computer does not meet all of these requirements you will not be able to install Windows 10. If your computer only barely meets these requirements, the performance of Windows 10 will likely not meet expectations.

B. Preparing for Upgrade. Preparing for a new upgrade requires several steps.
1. Research your software compatibility. Some of your older software might not work on Windows 10. For commercial software, you may need to pay for a replacement or upgrade. For line of business software, work with the organization that provides the software to ensure compatibility.
2. Obtain the new OS. Windows 10 is available for purchase in stores or you can download it from Microsoft. Windows 10 retails for approximately $130 but there are many discount programs available. As of August 2019, it is still possible to upgrade for free if you still have your Windows 7 or Windows 8.1 product key. Windows has three primary levels available: Home, Pro and Enterprise. It is likely best to continue with the level you currently have.
3. Backup your Computer. When you are installing a new operating system, there is a risk you will lose all of your files on the computer unless you back them up. Always make sure that any important files are copied to a backup location before starting the installation process. Use an external hard drive or burn the data to DVDs.

C. Making the Upgrade. Making the upgrade is a time-consuming process that takes patience. You will be required to first install a Setup program and then type in a long product key. The set-up program may reformat your hard drive, so don't skip the backup step above.

D. After the Upgrade. Upon completion you will have to enter log in credentials and may be required to re-install software. You can also expect to spend some time downloading the latest updates to the OS you just installed. Finally, you may need to download and install new drivers for various devices.

II. Conclusions. Upgrading to a new OS can be a challenging experience even for advanced users. If you are not comfortable with the instructions above, we recommend obtaining the services of an IT professional. Any computer technician, including technicians at businesses that sell computers, should be able to complete the upgrade.

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Completing Security Training

I. Attend Election Security Training

To complete this portion of the required security training, the clerk, or authorized designee, must attend an in-person or approved virtual election security training event. Past attendance qualifies for this requirement.

Qualifying activities include any the following:
1) an elections tabletop training exercise (TTX) hosted or approved by the WEC
2) an elections security roundtable hosted or approved by the WEC
3) an elections security presentation or briefing by the WEC
4) a regional cyber security workshop hosted by Wisconsin Emergency Management

Other in-person training events on election security or cyber security may qualify – contact the WEC to see if an activity qualifies.

$100 of grant funds may be applied to any expenses incurred attending training. Funds are not retroactively available for past attendance. Authorized expenses include, but are not limited to, mileage, meals, lodging, staff time, or attendance fees.

II. Complete Electronic Learning Modules

To complete this portion of the required security training, the clerk, or authorized designee, will send an email to the Elections Help Desk (elections@wi.gov) stating that the **Securing WisVote** series was completed (this training may have already been completed in compliance with the WisVote Access Policy. If so, please send the email indicating the date when the training series was previously completed).

Securing WisVote is a series of electronic learning modules located under the **Election Security Awareness** tile on The Learning Center (TLC) website (https://electiontraining.wi.gov/).

To access this resource in TLC (for clerks who do not already have access), please complete the following process:

1) Email a completed and signed copy of the Request to Add Authorized Users in TLC form, located on TLC home page, to the Elections Help Desk (elections@wi.gov). When competing the form, indicate "Not Applicable" under the Requested WisVote Access Level field (unless the user also requires access to WisVote, then identify the appropriate access level).

2) Upon receipt of the completed Request to Add Authorized Users in TLC form, the Elections Help Desk will create and issue a login and password for the user to obtain access to TLC website to allow for the new user to access this training.

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Sample Contingency Plan

To complete the contingency plan requirement, the clerk, or authorized designee, will email a copy of the contingency plan to the Elections Help Desk (elections@wi.gov).

If the county or municipality does not currently have a contingency/emergency response plan, or there is a desire to update the current plan, Wisconsin Elections Commission (WEC) staff created a sample template that may be accessed under the Additional Resources Section of the **Elections Security TTX (Version 1.0)** tile on The Learning Center (TLC) website (https://electiontraining.wi.gov/).

This document is a template and is available in a Word format so that you may create a customized plan that reflects your situation and resources. There are scenarios and suggested responses and you are encouraged to edit and tailor the document to meet the needs of your county/municipality.

To access this resource in TLC (for clerks who do not already have access), please complete the following process:

1)   Email a completed and signed copy of the Request to Add Authorized Users in The Learning Center (TLC) form to the Elections Help Desk (elections@wi.gov). When competing the form, indicate "Not Applicable" under the Requested WisVote Access Level field (unless the user also requires access to WisVote, then identify the appropriate access level).

2)   Upon receipt of the completed Request to Add Authorized Users in TLC form, the Elections Help Desk will create and issue a login and password for the user to obtain access to TLC website to allow for the new user to access this resource.